Amendments to the Specification:

Please replace paragraph [0012] with the following amended paragraph:

[0012] In one embodiment of the invention, a method for aligning images includes (1) selecting a pair of overlapping pixels when two images ~~second image~~ are aligned with a camera motion; (2) if both pixels are edge pixels, incrementing a correlation value between the two images for the camera motion; (3) if only one of the pixels is an edge pixel, decrementing the correlation value between the two images for the camera motion; (4) repeating steps (1) to (3) for other pairs of overlapping pixels in the two images to determine the correlation value for the camera motion. The method further includes (5) repeating steps (1) to (4) for other camera motions; (6) selecting camera motions having large correlation values; (7) determining matched edge counts for members of the group; (8) selecting the camera motion with the largest matched edge count; and (8) aligning the two images with the selected camera motion.

Please replace paragraph [0013] with the following amended paragraph:

[0013] Fig. 1 illustrates an example of a camera motion. A panoramic program typically includes an alignment algorithm that estimates the camera motion by searching for the best correlation between two images. Assuming the camera motion between images 12 and 14 is translation and rotation in the image plane, the motion can be described by a three value motion vector: [shift_x, shift_y, r_angle], where (shift_x, shift_y) is the translation vector and r_angle is the angle of rotation. In Fig. 1, (X, Y) are the axes of image 12, (X', Y') are the axes of image 14, and the ~~original~~ origin of each image is defined at the center of the image. Pixel coordinates between the two images can be transformed using Equation 1.0 listed below.

Please replace paragraph [0023] with the following amended paragraph:

[0023] Fig. 3A illustrates [[is]] another example of matching ambiguity where an image 32 and an image 36 both include an edge 36. Figs. 3B and 3C offer ~~offers~~ two possible solutions for correlating the images using equation 1.2. In the first solution shown in Fig. 3B, the entire edge 36 overlaps in both images. In the second solution shown in Fig. 3C, only part of edge 36 overlaps in both images. Experience shows that most users will chose the first solution because it matches the most edge points. This rule is hereafter referred to as "matching more objects if possible."

Please replace paragraph [0025] with the following amended paragraph:

[0025] In step 52, the program selects a translation vector [shift_x, shift_y] and a rotation angle r_angle that make up a camera motion. The translation vector [shift_x, shift_y] is selected within a range of [minx, maxx] by [miny, maxy], and the rotation angle is selected within a range of [minr, maxr]. Together, [minx, maxx], [miny, maxy], and [minr, maxr] define a range of camera motions that will be searched for the camera motion that produces the best correlation between the two images. In one example shown in Fig. 5, the program selects a camera motion 62 that creates an ~~overlaps~~ overlap 63 between ~~an image~~ images 64 and 66.

Please replace paragraph [0027] with the following amended paragraph:

[0027] In step 56, the program determines if it has calculated correlation values for the range of camera ~~motion~~ motions. If so, step 56 is followed by step [[58]] 57. Otherwise step 56 is followed by step 52 and method 50 repeats until the correlation values for the range of camera motions have been determined.

Please replace paragraph [0028] with the following amended paragraph:

[0028] In step 57, the program constructs a 2-D correlation map [[66]] 68 (Fig. 6). The axes of map 68 are the values of the translation vectors of the camera motions. The points in map 68 are the correlation values of the corresponding translation vectors. For all the camera motions having the same translation vector but different rotation angle, the program only maps the motion vector that has the largest correlation value. In other words,

$$Corr\_Map[x,y] = \underset{r \in [min\,r, max\,r]}{MAX}(Corr(x,y,r)), \qquad \text{Eqn. 2}$$

wherein Corr_Map is the mapped correlation value.

Please replace paragraph [0033] with the following amended paragraph:

[0033] In step 74, the program selects a pair of overlapping pixels from [[in]] the overlapping region of the two images if they were aligned with the camera motion selected in step 52 (Fig. 4). In the example shown in Fig. 5, pixels p and p' are overlapping pixels in overlapping region 63 between images 64 and 66.

Please replace paragraph [0035] with the following amended paragraph:

[0035] In step 78, the program increments the numerator of the correlation value because the overlapping pixels are likely to match when they are both edge pixels. In one embodiment, the correlation value is incremented by an edge orientation matching value derived from a second order differential edge detection filter such as a Laplace filter. In one embodiment, the edge matching value is defined as:

$$\frac{2L(p)L'(p')}{L^2(p)+L'^2(p')}, \qquad \text{Eqn. 4}$$

wherein L(p) is a Laplace gradient ~~applied~~ of pixel p, and L'(p') is a Laplace gradient of pixel p', which can also be written as L(p'). In one embodiment, the Laplace filter is defined as follows:

$$L(x,y) = I(x,y) - \frac{1}{9}\sum_{i=-1}^{1}\sum_{j=-1}^{1} I(x+i, y+j). \qquad \text{Eqn. 5}$$

Please replace paragraph [0044] with the following amended paragraph:

[0044] In step 94, the program selects a pair of overlapping pixels from [[in]] the overlapping region of the two images if they were aligned with the one of the camera motions selected in step 58 (Fig. 4).

Please replace paragraph [0049] with the following amended paragraph:

[0049] In summary, the calculations of steps 96 and 98 (Fig. 7) can be summarized in the equations below:

$$MEC = \sum_{p \in W} k(L(p), L'(p'), G(p), G'(p'))$$

$$k(L(p), L'(p'), G(p), G'(p')) = \begin{cases} 1 & ,\text{if } G(p) > T \text{ AND } G'(p') > T' \text{ AND } \dfrac{2L(p)L'(p')}{L^2(p)+L'^2(p')} \geq \dfrac{1}{3} \\ 0 & ,else \end{cases} \qquad \text{Eqns. 7}$$